

REMARKS

The Office Action dated August 4, 2010 has been carefully reviewed and the following comments are made in response thereto. In view of the following remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

The Examiner requested certified copies of two priority documents (GB 0106635.6 and GB 0118879.6). Applicant intends to submit these documents prior to grant of any patent based upon this application.

Objections to Claims

The objections to the claims were addressed as suggested by the Examiner. Withdrawal of the objections is requested.

Rejections under 35 U.S.C. 112 (second paragraph)

Claim 4 was rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claim 4 to overcome the rejection. Withdrawal of the rejection is requested.

Claim 26 was rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant notes that this claim provides for a second detection method for binding of a target molecule to the array. Specifically, binding can be detected by electrical means.

Rejections under 35 U.S.C. 103(a)

Claims 4, 16, 17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balasubramanian as set forth on page 3 of the office action.

Applicant submits that the array in Balasubramanian *et al.* relates to random arrays and where the array cannot be spatially addressable as required by the present invention. The phrase “spatially addressable” is defined in the specification as “signifies that the location of a molecule specifies its identity” (see specification at page 22, lines 22-25). On the contrary, the array in Balasubramanian contains molecules whose identity is NOT specified by their location in the array because their location is random. The molecules on the array are only spatially addressable after immobilisation. The amended claims provide for molecules on an array that are spatially addressable where the identity of each molecule is known or determined prior to immobilization.

Balasubramanian discloses that single molecules may be arrayed by immobilisation to the surface of a solid support and that the array is produced by dispensing small volumes of a sample containing a mixture of molecules onto a suitably prepared solid surface, or by applying a dilute solution to the solid surface to generate a random array (see page 7). In other words, a mixture of molecules is dispensed randomly on the array and then identification of each molecule is carried out after immobilisation onto the array. The amended claims provide for a method of producing an array where a single species of molecules is dispensed on the array in a defined location.

While absolute predictability is not required to support an obviousness rejection, a reasonable expectation of success is needed to support a case of obviousness (see Examination Guidelines Update at 75 Fed. Reg. 53644, 53657). Further, predictability as discussed in KSR encompasses (i) the expectation that prior art elements are capable of being combined, (ii) as well as the expectation that the combination would have worked for its intended purpose (Id at 53644). Here, the skilled person would not have been motivated to produce an array with spatially addressable molecules with any expectation of success because the cited reference discloses production of random arrays, which are entirely different than the arrays set forth in the amended claims. In view of the amendments and above comments, withdrawal of the rejection is requested.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balasubramanian and further in view of Edman as set forth on page 5 of the office action. The deficiencies of Balasubramanian are discussed above. Edman alone, does not disclose or suggest all of the features of claim 25. Withdrawal of the rejection is requested.

Conclusion

It is respectfully submitted that all claims are now in condition for allowance, early notice of which would be appreciated. Should the Examiner disagree, Applicant respectfully requests a telephonic or in-person interview with the undersigned attorney to discuss any remaining issues and to expedite the eventual allowance of the claims.

Dated: **February 4, 2011**
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Respectfully submitted,
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